

Batch #417R
6/11/99 07/12/91Serial Number: 09/147 919CRF Processing Date: 6/11/99
Edited by: JL
Verified by: JL (STIC staff) Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically:ENTERED Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____. Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: Deleted extra, invalid, headings used by an applicant, specifically: Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file;
 page numbers throughout text; other invalid text, such as _____. Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: Other:

INPUT SET: S32192.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

1 **SEQUENCE LISTING**
2

3 (1) General Information:

4

5 (i) APPLICANT:

6 (A) NAME: Bavarian Nordic AS
7 (B) STREET: Naverland 2
8 (C) CITY: Glostrup
9 (E) COUNTRY: Denmark
10 (F) POSTAL CODE (ZIP): 2600
11 (G) TELEPHONE: 0045 43 438 444

12

13 (A) NAME: GSF Forschungszentrum fuer Umwelt und
14 Gesundheit GmbH
15 (B) STREET: Ingolstaedter Landstr. 1
16 (C) CITY: Neuherberg
17 (E) COUNTRY: Germany
18 (F) POSTAL CODE (ZIP): 85758

19

20 (ii) TITLE OF INVENTION: Recombinant MVA Virus Expressing Dengue Virus
21 Antigens, and The Use Thereof in Vaccines

22

23 (iii) NUMBER OF SEQUENCES: 8

24

25 (v) COMPUTER READABLE FORM:

26 (A) MEDIUM TYPE: Floppy disk
27 (B) COMPUTER: IBM PC compatible
28 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
29 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

30

31 (vi) CURRENT APPLICATION DATA:

32 (A) APPLICATION NUMBER:
33 (B) FILING DATE:

34

35 (vii) PRIOR APPLICATION DATA:

36 (A) APPLICATION NUMBER: DK 1035/96
37 (B) FILING DATE:

38

39

(2) INFORMATION FOR SEQ ID NO: 1:

40

41 (i) SEQUENCE CHARACTERISTICS:

42 (A) LENGTH: 33 base pairs
43 (B) TYPE: nucleic acid
44 (C) STRANDEDNESS: single
45 (D) TOPOLOGY: linear

46

ENTERED

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/147,919**DATE: 06/14/1999
TIME: 16:45:38**INPUT SET: S32192.raw**

47 (ii) MOLECULE TYPE: other nucleic acid
48 (A) DESCRIPTION: /desc = "primer"

49
50 (iii) HYPOTHETICAL: YES
51
52 (iv) ANTI-SENSE: NO
53
54
55
56

57 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

58
59 CAGCAGGGTA CCCTCATCGT ACAGGACGTT CTC

33

60
61 (2) INFORMATION FOR SEQ ID NO: 2:

62
63 (i) SEQUENCE CHARACTERISTICS:
64 (A) LENGTH: 42 base pairs
65 (B) TYPE: nucleic acid
66 (C) STRANDEDNESS: single
67 (D) TOPOLOGY: linear
68

69 (ii) MOLECULE TYPE: other nucleic acid
70 (A) DESCRIPTION: /desc = "primer"

71
72
73
74

75 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

76
77 CAGCAGCCCG GGTATTGAT GATTATTTT AACAAAATAA CA

42

78
79 (2) INFORMATION FOR SEQ ID NO: 3:

80
81 (i) SEQUENCE CHARACTERISTICS:
82 (A) LENGTH: 36 base pairs
83 (B) TYPE: nucleic acid
84 (C) STRANDEDNESS: single
85 (D) TOPOLOGY: linear
86

87 (ii) MOLECULE TYPE: other nucleic acid
88 (A) DESCRIPTION: /desc = "primer"

89

90 (iii) HYPOTHETICAL: YES
91

92 (iv) ANTI-SENSE: NO
93
94
95
96

97 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

98
99 CAGCAGCTGC AGGAATCATC CATTCCACTG AATAGC

36

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/147,919**DATE: 06/14/1999
TIME: 16:45:39**INPUT SET: S32192.raw**

100
101 (2) INFORMATION FOR SEQ ID NO: 4:
102
103 (i) SEQUENCE CHARACTERISTICS:
104 (A) LENGTH: 36 base pairs
105 (B) TYPE: nucleic acid
106 (C) STRANDEDNESS: single
107 (D) TOPOLOGY: linear
108
109 (ii) MOLECULE TYPE: other nucleic acid
110 (A) DESCRIPTION: /desc = "primer"
111
112
113
114
115 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
116
117 CAGCAGGCAT GCCGACGAAC AAGGAACGT AGCAGA 36
118
119 (2) INFORMATION FOR SEQ ID NO: 5:
120
121 (i) SEQUENCE CHARACTERISTICS:
122 (A) LENGTH: 33 base pairs
123 (B) TYPE: nucleic acid
124 (C) STRANDEDNESS: single
125 (D) TOPOLOGY: linear
126
127 (ii) MOLECULE TYPE: other nucleic acid
128 (A) DESCRIPTION: /desc = "primer"
129
130
131
132
133 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
134
135 CAGCAGGTCG ACCCCGACCG CCTTACTGCC GCC 33
136
137 (2) INFORMATION FOR SEQ ID NO: 6:
138
139 (i) SEQUENCE CHARACTERISTICS:
140 (A) LENGTH: 33 base pairs
141 (B) TYPE: nucleic acid
142 (C) STRANDEDNESS: single
143 (D) TOPOLOGY: linear
144
145 (ii) MOLECULE TYPE: other nucleic acid
146 (A) DESCRIPTION: /desc = "primer"
147
148
149
150
151 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
152

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/147,919**DATE: 06/14/1999
TIME: 16:45:39**INPUT SET: S32192.raw**

33

153 GGGGGGCTGC AGATGGTAGC GACCGGGCGCT CAG

154

155 (2) INFORMATION FOR SEQ ID NO: 7:

156

157 (i) SEQUENCE CHARACTERISTICS:

- 158 (A) LENGTH: 36 base pairs
- 159 (B) TYPE: nucleic acid
- 160 (C) STRANDEDNESS: single
- 161 (D) TOPOLOGY: linear

162

163 (ii) MOLECULE TYPE: other nucleic acid

- 164 (A) DESCRIPTION: /desc = "primer"

165

166

167

168

169 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

170

171 CAGCAGCCCG GGATGGCAGC AATCCTGGCA TACACC

36

172

173 (2) INFORMATION FOR SEQ ID NO: 8:

174

175 (i) SEQUENCE CHARACTERISTICS:

- 176 (A) LENGTH: 39 base pairs
- 177 (B) TYPE: nucleic acid
- 178 (C) STRANDEDNESS: single
- 179 (D) TOPOLOGY: linear

180

181 (ii) MOLECULE TYPE: other nucleic acid

- 182 (A) DESCRIPTION: /desc = "primer"

183

184

185

186

187 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

188

189 CAGCAGCCCG GGTCACTGTA GTTTGTCCAT CCTCAGCCT

39

190

PAGE: 1

**SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/147,919**

DATE: 06/14/1999
TIME: 16:45:39

INPUT SET: S32192.raw

Line	Error	Original Text
5	Mandatory Value Not Present	(i) APPLICANT:
6	Unknown or Misplaced Identifier	(A) NAME: Bavarian Nordic AS
7	Unknown or Misplaced Identifier	(B) STREET: Naverland 2
8	Unknown or Misplaced Identifier	(C) CITY: Glostrup
9	Unknown or Misplaced Identifier	(E) COUNTRY: Denmark
10	Unknown or Misplaced Identifier	(F) POSTAL CODE (ZIP): 2600
11	Unknown or Misplaced Identifier	(G) TELEPHONE: oo45 43 438 444
13	Unknown or Misplaced Identifier	(A) NAME: GSF Forschungszentrum fuer Umwelt und
15	Unknown or Misplaced Identifier	(B) STREET: Ingolstaedter Landstr. 1
16	Unknown or Misplaced Identifier	(C) CITY: Neuherberg
17	Unknown or Misplaced Identifier	(E) COUNTRY: Germany
18	Unknown or Misplaced Identifier	(F) POSTAL CODE (ZIP): 85758

PAGE: 1

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/147,919**

DATE: 06/11/1999
TIME: 10:23:23

INPUT SET: S32192.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

1 SEQUENCE LISTING
2

3 (1) General Information:

4

5 (i) APPLICANT:

- 6 (A) NAME: Bavarian Nordic AS
- 7 (B) STREET: Naverland 2
- 8 (C) CITY: Glostrup
- 9 (E) COUNTRY: Denmark
- 10 (F) POSTAL CODE (ZIP): 2600
- 11 (G) TELEPHONE: 0045 43 438 444

*Does Not Comply
Corrected Diskette Needed*

12

- 13 (A) NAME: GSF Forschungszentrum fuer Umwelt und
14 Gesundheit GmbH
- 15 (B) STREET: Ingolstaedter Landstr. 1
- 16 (C) CITY: Neuherberg
- 17 (E) COUNTRY: Germany
- 18 (F) POSTAL CODE (ZIP): 85758

19

20 (ii) TITLE OF INVENTION: Recombinant MVA Virus Expressing Dengue Virus
21 Antigens, and The Use Thereof in Vaccines

22

23 (iii) NUMBER OF SEQUENCES: 8

24

(iv) COMPUTER READABLE FORM:

- 25 (A) MEDIUM TYPE: Floppy disk
- 26 (B) COMPUTER: IBM PC compatible
- 27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- 28 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

30

31

(v) CURRENT APPLICATION DATA:

→ (A) APPLICATION NUMBER: DK 1035/96

32

33

34 (2) INFORMATION FOR SEQ ID NO: 1:

(VII) Prior APP DATA!

35

36

(i) SEQUENCE CHARACTERISTICS:

- 37 (A) LENGTH: 33 base pairs
- 38 (B) TYPE: nucleic acid
- 39 (C) STRANDEDNESS: single
- 40 (D) TOPOLOGY: linear

41

42

(ii) MOLECULE TYPE: other nucleic acid

43

- (A) DESCRIPTION: /desc = "primer"

44

45

(iii) HYPOTHETICAL: YES

46

INPUT SET: S32192.raw

47 (iv) ANTI-SENSE: NO
48
49
50
51
52 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
53
54 CAGCAGGGTA CCCTCATCGT ACAGGACGTT CTC 33
55
56 (2) INFORMATION FOR SEQ ID NO: 2:
57
58 (i) SEQUENCE CHARACTERISTICS:
59 (A) LENGTH: 42 base pairs
60 (B) TYPE: nucleic acid
61 (C) STRANDEDNESS: single
62 (D) TOPOLOGY: linear
63
64 (ii) MOLECULE TYPE: other nucleic acid
65 (A) DESCRIPTION: /desc = "primer"
66
67
68
69
70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
71
72 CAGCAGCCCC GGTATTCGAT GATTATTTT AACAAAATAA CA 42
73
74 (2) INFORMATION FOR SEQ ID NO: 3:
75
76 (i) SEQUENCE CHARACTERISTICS:
77 (A) LENGTH: 36 base pairs
78 (B) TYPE: nucleic acid
79 (C) STRANDEDNESS: single
80 (D) TOPOLOGY: linear
81
82 (ii) MOLECULE TYPE: other nucleic acid
83 (A) DESCRIPTION: /desc = "primer"
84
85 (iii) HYPOTHETICAL: YES
86
87 (iv) ANTI-SENSE: NO
88
89
90
91
92 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
93
94 CAGCAGCTGC AGGAATCATC CATTCCACTG AATAGC 36
95
96 (2) INFORMATION FOR SEQ ID NO: 4:
97
98 (i) SEQUENCE CHARACTERISTICS:
99 (A) LENGTH: 36 base pairs

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/147,919**DATE: 06/11/1999
TIME: 10:23:24**INPUT SET: S32192.raw**

100 (B) TYPE: nucleic acid
101 (C) STRANDEDNESS: single
102 (D) TOPOLOGY: linear
103
104 (ii) MOLECULE TYPE: other nucleic acid
105 (A) DESCRIPTION: /desc = "primer"
106
107
108
109
110 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
111
112 CAGCAGGCAT GCCGACGAAC AAGGAACGT AGCAGA 36
113
114 (2) INFORMATION FOR SEQ ID NO: 5:
115
116 (i) SEQUENCE CHARACTERISTICS:
117 (A) LENGTH: 33 base pairs
118 (B) TYPE: nucleic acid
119 (C) STRANDEDNESS: single
120 (D) TOPOLOGY: linear
121
122 (ii) MOLECULE TYPE: other nucleic acid
123 (A) DESCRIPTION: /desc = "primer"
124
125
126
127
128 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
129
130 CAGCAGGTCG ACCCGACCG CCTTACTGCC GCC 33
131
132 (2) INFORMATION FOR SEQ ID NO: 6:
133
134 (i) SEQUENCE CHARACTERISTICS:
135 (A) LENGTH: 33 base pairs
136 (B) TYPE: nucleic acid
137 (C) STRANDEDNESS: single
138 (D) TOPOLOGY: linear
139
140 (ii) MOLECULE TYPE: other nucleic acid
141 (A) DESCRIPTION: /desc = "primer"
142
143
144
145
146 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
147
148 GGGGGGCTGC AGATGGTAGC GACCGGCGCT CAG 33
149
150 (2) INFORMATION FOR SEQ ID NO: 7:
151
152 (i) SEQUENCE CHARACTERISTICS:

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/147,919**DATE: 06/11/1999
TIME: 10:23:24**INPUT SET: S32192.raw**

153 (A) LENGTH: 36 base pairs
154 (B) TYPE: nucleic acid
155 (C) STRANDEDNESS: single
156 (D) TOPOLOGY: linear
157
158 (ii) MOLECULE TYPE: other nucleic acid
159 (A) DESCRIPTION: /desc = "primer"
160
161
162
163
164 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
165
166 CAGCAGCCCCG GGATGGCAGC AATCCTGGCA TACACC 36
167
168 (2) INFORMATION FOR SEQ ID NO: 8:
169
170 (i) SEQUENCE CHARACTERISTICS:
171 (A) LENGTH: 39 base pairs
172 (B) TYPE: nucleic acid
173 (C) STRANDEDNESS: single
174 (D) TOPOLOGY: linear
175
176 (ii) MOLECULE TYPE: other nucleic acid
177 (A) DESCRIPTION: /desc = "primer"
178
179
180
181
182 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
183
184 CAGCAGCCCCG GGTCACTGTA GTTTGTCCAT CCTCAGCCT 39
185

PAGE: 1

**SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/147,919**

DATE: 06/11/1999
TIME: 10:23:24

INPUT SET: S32192.raw

Line	Error	Original Text
5	Mandatory Value Not Present	(i) APPLICANT:
6	Unknown or Misplaced Identifier	(A) NAME: Bavarian Nordic AS
7	Unknown or Misplaced Identifier	(B) STREET: Naverland 2
8	Unknown or Misplaced Identifier	(C) CITY: Glostrup
9	Unknown or Misplaced Identifier	(E) COUNTRY: Denmark
10	Unknown or Misplaced Identifier	(F) POSTAL CODE (ZIP): 2600
11	Unknown or Misplaced Identifier	(G) TELEPHONE: oo45 43 438 444
13	Unknown or Misplaced Identifier	(A) NAME: GSF Forschungszentrum fuer Umwelt und
15	Unknown or Misplaced Identifier	(B) STREET: Ingolstaedter Landstr. 1
16	Unknown or Misplaced Identifier	(C) CITY: Neuherberg
17	Unknown or Misplaced Identifier	(E) COUNTRY: Germany
18	Unknown or Misplaced Identifier	(F) POSTAL CODE (ZIP): 85758